

**Meeting Description:** Michigan Geographic Framework Users Meeting

**Date:** May 13, 1999      **Time:** 10:00 a.m.

**Location:** Lewis Cass Bldg., 6th Floor, North Wing, Dept. of Community Health, Director's Conference Room

Scheduled Time			Actual Time		
Start	Stop	Total Hours	Start	Stop	Total Hours
10:00 a.m.	12:00 p.m.	2	10:00 a.m.	12:00 p.m.	2

I. Approval of April Meeting Minutes

Per Joyce Newell, Michigan Department of Transportation (MDOT), Section V. MDOT Projects and Activities

**Reads:** They are currently involved in locating trunkline-related bridges for the **permanent** routings for oversized and overweight trucks.

**Should read:** They are currently involved in locating trunkline-related bridges for the **permit** routings for oversized and overweight trucks.

II. Geographic Framework Program

A. Michigan Information Center (MIC) Project Update

1. Michigan Accident Location Inventory (MALI) to Geographic Information Systems (GIS) Conflation (Phase 2) Status

Rob Surber, MIC, distributed status maps, which can also be viewed on the MIC's new web page. The status map will be updated every Friday. There are 31 counties through Phase 2 - complete county coverage of the transportation base for the framework through '98 certified MALI mileage. This date is significant for GIS users because it represents a product that is ready to go for a number of GIS applications. There are 10 counties that have reached the identity point - GIS and MALI equal. MALI is the linear referencing system being put onto the transportation base. There are 9 counties beginning Phase 2 work. There are 50 counties either underway or complete at this point. The MIC is doing county seaming and getting estimates on what is involved. Phase 2 will have countywide products.

III. Michigan State Government Geographic Information Policy Council

A. State Agency Survey Development

Rob Surber, MIC, reported that the MIC has sent out a state agency survey to the policy council representatives in all state departments. A list of the council representatives is on the MIC web page. The intent is to produce summary statistics of general information that will be printed out on the web page. Rob is hoping some of the statistics would be available for the IMAGIN presentation. The state agency survey is on the state Intranet for only state government use at this time. It is being tested among state agencies before distributing the survey statewide with IMAGIN.

B. National Spatial Data Infrastructure (NSDI) Clearinghouse

Rob Surber, MIC, reported that the MIC is working with IMAGIN regarding the geospatial data clearinghouse which is a web network of nodes that are registered with the Federal Geographic Data Committee's (FGDC) NSDI site. Registering your site and running a software product called ISITE, allows anyone on the web to search and retrieve your clearinghouse infrastructure. The MIC is not registered yet, but does have the ISITE software and is testing it on their server. The software will reside on the state's consolidated network operations center which has 24-hour 7-day a week support system and backup. The MIC will put up available clearinghouse Metadata that is ready to go and they will be working with IMAGIN to have a basic on-line entry system via the web. Rob plans to have a coordinated survey with SEMCOG and will

advise the group when it is released. The purpose of the survey will be to match users with producers. IMAGIN will handle distribution and promotion of the survey.

#### IV. Michigan Department of Natural Resources (MDNR) Projects and Activities

Gary Bilow, MDNR, reported that his division has been renamed from 'Real Estate Division' to 'Land and Mineral Services Division'. The quarter quarter grid project is done except for the Metadata portion. Now they are looking at putting the state park roads and a linear referencing system into the framework and have been talking to Rob Surber, MIC, about doing a pilot project.

Rob Surber, MIC, added that the pilot project would integrate the state park roads into the MALI system-continuing it with the rest of the network. There are a lot of inventory issues on those roads that they want to track. The framework has some state park roads - some are not named at this time.

Joyce Newell, MDOT, asked if the roads would be classified as to whether they are open to the public. For MDOT's submittal of the Highway Performance Management System this year, FHWA is insisting they need to include the federally owned highways and roads. That would amount to another 2,000 miles of roads, but there are no maps showing where these roads are located. The Federal Forest Agency has assured MDOT that these are roads that are not currently claimed as publicly owned roads. It would give MDOT more miles that they could functionally classify at a higher level that would qualify for federal aid.

Gary Bilow, MDNR, reported that MDNR is also mapping snowmobile trails with Global Positioning Systems (GPS) and are interested in building a linear referencing system for them.

Joyce Newell, MDOT, asked Gary Bilow if MDNR plans to add level numbers to road that added to the framework.

Gary Bilow, MDNR, responded that they will be going through and adding levels and adopting the framework as their base map. They are trying to wean themselves away from the Microstation and CAD world and go into the Arc Info world.

#### V. MDOT Projects and Activities

##### A. GPS Update

Larry Christenson, MDOT, reported that an effort to justify a new aerial camera that is GPS capable and has a GPS receiver attached to it has been initiated. It can time tag a file. To make it useful for design scale mapping, it must have a base station or ground station in close proximity to the project. MDOT first looked at the existing U.S. Army Corps of Engineers stations, but they only broadcast in 15-second intervals and MDOT needs a 1-second interval. The next alternative is to put a receiver in an aircraft with another person, but that would involve hiring more people. They have proposed setting up 12 base stations throughout the state that do have servers linked to MDOT's central office. The servers would download 12 hours of data automatically. They are looking for participants to help with the base stations. MDOT will get the differential correction and post-process all of their information. If anybody is interested in a live-correction receiver, they would have to look at the additional cost to set up a transmitter for their own receiver at the base stations. The proposal to proceed with the base stations has been well received by upper management. MDOT is anticipating collection of 12 hours of data at 1-second intervals every day.

Rob Surber, MIC, asked if the Transportation Service Centers (TSC) cover the entire state.

Larry Christenson, MDOT, responded that there are 32 sites up and running, including the regional offices. Ninety percent of the state will be covered with a 50-mile radius. Larry asked people to look within their departments to see if there is interest in upgrading to live transmission. If anybody wants to participate, contact Larry Christenson at (517) 373-0077. MDOT is open to suggestions and ideas.

Gary Bilow, MDNR, suggested that MDOT talked to the State Police and MDNR because they have Automatic Vehicle Locators (AVL) using GPS. Gary offered to give the name of a contact person at MDNR.

Paul Hamilton, Tri-County Regional Planning, suggested the MDOT contact the transportation companies - CATA, DDOT, SMART.

Tina Roberts, Wayne County, offered to give the names of contacts at DDOT and SMART.

Joyce Newell, MDOT, stated that they have attributed one county, completely validated it, and got it back into framework. They are providing product back to the county engineers that requested information through the Road Soft Users Group. Joyce displayed the Alcona County map that contains plots of bridges that they contain inventory data on. The legal system is reflected in the Physical Reference (PR) number. This system is designed for funding formulas for city and county roads through Act 51.

1. Trunk line
2. County primary
3. County local
4. City major
5. City local

Some roads don't have legal system codes assigned to them, because they are not certified as being public roads. If the current owner wants to relinquish rights to the county or city, the road would then be coded.

Rob Surber, MIC, added that there are different standard distribution files – some have transportation emphasis, some have demographic emphasis, some all fields. There will be a lot of users that only want to view one area, so are trying to make it more manageable.

Joyce Newell, MDOT, stated that MDOT is preparing maps for the counties to review so they can advise of corrections. The counties that have been given to MSI have been attributed in ESRI so that MDOT can get them back quickly. Approximately 5-6 counties have been done in Caliper software and will take longer to get back into ESRI format to integrate, Eaton County is one of those counties.

Rob Surber, MIC, commented that the MIC is working on Eaton County to get back into ESRI and will let MDOT know where they are.

Joyce Newell, MDOT, responded that the tri-county area would be completed soon. MDOT is validating Clinton County, and Ingham County is at Michigan State Industries (MSI) being attributed.

Rob Surber, MIC, stated that this will be the first region to be done and seaming will be done next.

Joyce Newell, MDOT, explained that Road Soft is a package that was developed by Michigan Technological University from the Michigan Accident Location Inventory (MALI) (a system of PR numbers for every road in the state police crash index) to enable counties and cities to do inventory. The counties have a valid complaint that they are unable to use the system because the data in MALI is incorrect. They have been using 1970 software to fix it. There are a number of counties that have put attribute data on their roadways and will be anxious to transfer their data into the new system. Every county has MALI available to them free of charge, although not all counties use it. Michigan Tech's effort will be to add GIS functions to Road Soft. Framework having all roads, even private roads, will be helpful to counties, but the counties are still suspicious that the product still will be unusable. MDOT wants counties to be in contact with MIC to update roads and work out issues.

Joyce Newell, MDOT, added that currently Act 51 funding is divided by percentage of roads each county's public roads compared to all counties' public roads. MDOT does not have the resources to see if every road is open to the public. If they were to do a verification, they would have to do all counties in a given year to be fair.

Paul Hamilton, Tri-County Regional Planning, stated that perhaps they could coordinate with MDOT to get the work done.

Rob Surber, MIC, stated that the state has an interest in general from an accounting aspect to depreciate infrastructure. The Office of Financial Management is very interested in keeping up with changes over time.

## VI. MIC Projects and Activities

### A. Statewide Land Database (SWLDB) – Executive Information System (EIS)

Rob Surber, MIC, reported that the MIC is working on the SWLDB EIS system with MSU on a prototype in the tri-county area (Ingham, Eaton, and Clinton). The goal of the project is to develop a geographic data warehouse to provide a query of land facilities and infrastructure and cross-reference with other things – i.e. demographic data, aerial photography, etc. Initially this will be done in a MapObjects environment and it will

not be web enabled. The goal is to create a product to move into the web arena for online distribution. The target audience is not the GIS analyst, but it is being developed for people who have questions that are geographic in nature - how many people are in a building, what departments are there, is there available space. Individual departments have information internally, but don't know about other department's facilities. Bill Enslin, MSU, has the initial database and geographic base map files and MIC is working with MDNR on the grid. Over the next month, they will be hitting it hard and hope to present the project to a committee of representatives from departments for their review. Hope to use the EIS to establish a 'needs analysis'. Most of data exists but needs to be linked and integrated. The project is being developed on framework.

#### B. Redistricting Status

Rob Surber, MIC, distributed a current status map. Democrats and Republicans on the Redistricting Committee will use this map as a neutral database to tie in election data, demographic data, and geographic data. There are a lot of discrepancies in the information received from the clerks and election bureaus. This project will tie into framework.

#### C. National Pipeline Mapping

Rob Surber, MIC, reported that the U.S. Department of Transportation (USDOT) has an interest in establishing state repositories for linear mapping of pipeline and the natural gas facilities. On May 17 the USDOT will send out a notice for states that want to send in a proposal to be a repository. They are going to establish this project with 50% matching funds. It would involve working with the companies responsible for the pipeline information will be provided to the state coordinator who will check quality control and integrate information into the statewide mapping project. Rob shared a printout of the processes that were prepared by the federal government. The USDOT already has contacts with companies nationwide. They are hopeful that states would take a role in this project, because the states would have more of an interest and probably do a better job. If the states are not interested, the federal government will do the project at the national level. The feds are interested in a linear referencing system and attributed data for this network. The information will be integrated into a base map with attribute data, will go through quality control, be sent back to the originators for review, then Michael Baker, Inc. will integrate into the national level. The goal is to have a seamless nationwide product with a minimum level of accuracy of +/- 500 feet, but would like 1:24,000 scale. Topo maps will be a standard way of communicating updated information. For more information, you can check the web site, [www.npms.rspa.dot.gov](http://www.npms.rspa.dot.gov) Rob asked if there is interest within the Michigan GIS Users' Group to be involved in a cooperative effort. The framework is a great place for it because it is already being generated as a seamless fully attributed product that could be integrated with pipelines and other features. The feds are looking at natural gas, liquid gas, trunklines, and transmission lines. This process will allow a chain through local government up to the national product. This is a voluntary process, but if Michigan wants to get the best product possible, we should be involved in some manner.

Gary Bilow, MDNR, commented that the MDNR would be interested because a lot of the pipelines cross easements that go through state forests. MICHCON has this information and they contacted Dave Forstat, Geological Mapping Unit, about a data exchange. A couple of years ago, the Michigan Public Services Commission (MPSC) was involved in a pipeline-mapping project and Detroit Edison has had a mapping program for years.

Rick Comstock, Consumers Energy, commented that this is the first he time he has heard about the national pipeline and asked if Rob knew the name of the contact at U.S.D.O.T.

Rob Surber, MIC, responded that it is Tom Scott (202) 366-4538.

Paul Hamilton, Tri-County Regional Commission, added that his organization fields inquiries from people wanting this type of information. He thinks that some type of a cooperative venture should be proposed.

Tina Roberts, Wayne County, commented that from the county level, Wayne County is extremely interested in all utilities. Her concern is that where available, they would like greater accuracy.

Larry Christenson, MDOT, commented that MDOT is always interested in utilities and right-of-way crossings. A lot of that information already exists because they have had to relocate to build new roads. If it is more readily accessible the next time they go back to that facility, it will make things a lot easier.

Steve Miller, MDEQ, added that he is sure that MDEQ is interested in the results for various programs.

Rob Surber, MIC, stated that by the next meeting, he would make the proposal available, touch base with folks, and make sure that we cover bases and look at a plan of participation.

#### VII. Michigan Department of Environmental Quality (MDEQ) Projects and Activities

Steve Miller, MDEQ, reported that John Clark is working on 14-digit HUC codes for the Watershed Project. They are available now and will be put up on the web site (refer to last month's meeting minutes for directions on how to access MDEQ's home page). Macatawa Basin information is also on the site and will update on U.S.G.S. effort and others to bring information from the Reach file down. Steve will contact Mark Coppersmith, U.S.G.S., when the seaming is completed on Allegan and Ottawa Counties to see if U.S.G.S. has their part done. The contract for \$250,000 for major rewrite of the Statewide Water Database, Well Key Program (a program being shifted from MDNR to DEQ), has been signed. The program will allow the well drillers and counties to enter well records directly to eliminate backlog. It's a one-year process, the old Well Key Program is not year 2000 compliant and may not have the means to deal with well records in the interim. They continue to work with MSU to get information to the counties for the Source Water Assessment Program, including the LandScan information with the viewer and integrating other data with it like the well log records and underground storage tanks. MDEQ is proceeding to work with MIC to do address matching of underground storage tanks. That information will also be made available on the web.

#### VIII. Southeast Michigan Council of Governments (SEMCOG) Projects and Activities

Steve Perry, SEMCOG, distributed a status update of work they are doing on the Michigan Geographic Framework (MGF). They are updating the Minor Civil Divisions (MCDs) by closing polygons and updating to '94 TIGER MCDs. They are also cleaning up the census tract blocks to utilize on the MGF. SEMCOG is working on the Livingston County addressing and standards documentation, which follows the framework format. They will provide the documentation to Livingston County for review and will then give it back to the state.

Rob Surber, MIC, added that one of the problems with standards addressing is – 'what are the standards'. MIC is creating a county by county statewide guide that identifies contacts of who sets addressing standards; what they are; what the rules are; what area they cover; documenting it with maps, diagrams, and descriptions. It will be a living document and will be useful for a lot of agencies.

Steve Perry, SEMCOG, added that he was brought into the addressing issue recently because of the 9-1-1 program going on. At the June 3 GIS Regional Committee meeting, they will be focusing on this issue. Documentation is a great educational tool. The 2000 aerial photo request for purchase (RFP) will go out the first of June. They are going with standard black and white panchromatic 1:24,000 photography, will scan the photography to geographic quads and will not go to digital ortho's. They will try to create a digital version of the air photos. Steve would like to have a kiosk system for people to walk into and purchase air photos. Having them scanned in, you could have a push screen printout system. SEMCOG just purchased a high-end Xerox copier to enlarge air photos. Steve would eventually like to see these on the web. They have a scan ratio of about 1,000-2,000 dots per inch – to put on the web they would have to resample down to 300.

Rob Surber, MIC, commented that the state level would be interested in a coordinated flight in off years from SEMCOG's flight schedule. Then they could get good decent coverage of the SEMCOG region every 2 1/2 years.

Tina Roberts, Wayne County, stated that Wayne County has a 5-year flight cycle and yearly update portions.

Rob Surber, MIC, commented that it would be useful to have page in the clearinghouse that identifies when agencies are creating aerial photographs/digital ortho photography.

Tina Roberts, Wayne County, asked if SEMCOG was planning to scan historical sites.

Steve Perry, SEMCOG, responded that they are not doing it right now. They do own the negatives and they scanned from the original negative. Oakland County is going back to 1960 and scanning all of theirs in. MSU has scanned historical sites on a project basis.

IX. Tri-County Regional Planning Commission Projects and Activities

Paul Hamilton, Tri-County Regional Planning, reported that they are 1 of 35 recipients nationwide of the Transportation Community Systems Preservation pilot program. This adds \$355,000 of federal money over the next two years bringing their total budget to \$800,000. Included are high-tech GIS applications that they intend to do off framework. One will be developing three-dimensional oblique computer imagery of future regional growth. Another application will be a look at the historical impact of transportation investment decisions. This will be based on the framework using a method developed at Portland State using mile grids. The project also includes MIRIS update and will get the request for proposal out soon. They are gearing up for first stakeholders meeting May 26 at the Midway.

X. Michigan State University (MSU) Center for Remote Sensing and GIS Projects and Activities

Bill Enslin, MSU Center for Remote Sensing and GIS, commented on the MDEQ work with the framework files to prepare usable maps for non-GIS people. They are cleaning and building the banks of the 2-bank rivers. They have finalized procedures on how that is done. The MIC staff has reviewed the process. MSU has completed the tri-county area and Barry County and they have 10 other counties that are nearing completion of the process. As Phase 2 counties are completed, they will build hydrography for them. They have been augmenting lake names through other sources, principally through the Geographic Names Sources. They have also identified lakes that aren't in the framework files that are in Geographic Names Information System. They are verifying their locations on maps and aerial imagery and if confirmed and are present on the digital raster graphics (DRG), they are digitizing the lake boundaries off the DRGs. They have codes to indicate where the boundary line came from.

Rob Surber, MIC, stated that most of Bill's work will easily integrate back into the framework.

Bill Enslin, MSU Center for Remote Sensing and GIS, stated that IMAGIN did submit a proposal to Federal Geographic Data Committee (FGDC) for the Don't Duck Metadata Program and did receive funding, but not as much as they asked for. Major component was to develop training materials to put on workshops for Metadata training. There is a companion grant that was approved for Land Information Access Association (they got reduced funding as well) to operate a help desk for Datalogr or technical questions regarding current Metadata tools.

XI. County/Local Projects and Activities

Tina Roberts, Wayne County, reported that they are working on a 5-year plan in 3 years. They are 50% done with the photogrammetric project. They are doing full digital ortho photos at about 1:100 scale 1 foot accuracy 6 inch pixels in black and white. From this they are generating planimetric features - all bridge polygons and culverts polygons. When complete, they will begin conflation of the framework onto the base. They are also beginning the cadastral project. They are going to get tax parcels and ownership parcels for the entire county - somewhere between 800,000 to 1,000,000 parcels and growing every day. Also working on a detailed GIS training plan. They are looking at maintenance applications for the centerlines. The majority of planimetrics and digital ortho's will be updated on a 5-year rotating cycle. Trying to implement a plan review system. They are looking at cadastral maintenance applications. They are working with public services, environment, assessment equalization, registrar of deeds, and the City of Detroit. The product is vectorized (image driven) and will be attributed using framework. The final digital ortho quad (DOQ) product will be the end of September, not including the conflation product. An early version pre-quality/control is available but need to seam it.

Zubair Ahmad, City of Lansing, reported that they did a pilot project using AutoCAD and brought into an ArcView environment, mapped out their Pavement Management System (PMS) and it is up and running. The

project is 95% complete. They have extended mapping services to the City Assessor's office and the City Planning office.

Rob Surber, MIC, commented that the city has planimetrics needs that are different than what the state can support. Although there is information that can be passed back and forth - the MIC will be looking at the city's files. It will be a compromised approach to sharing information, not fully integrated.

Paul Hamilton, Tri-County Regional Planning, stated that issues in the Act 51 debate is the potential lack of good information about local system condition information. Tri-County volunteered to get good 'condition and need' information for off trunkline system into the pipeline. It would be helpful to get information from Lansing and other cities and counties.

Joyce Newell, MDOT, added that they are making it clear to the committee that the most recent information that they have on local roads is from a 1985 needs study.

## XII. U.S. Census Bureau Regional Office TIGER Update

There was nobody in attendance.

## XIII. Federal Projects and Activities

Lorri Peltz-Lewis, Michigan Natural Features Inventory, reported that they installed Biotics software that works on an Oracle base and they are beta testing it. It is a powerful system and should offer more capabilities. They hope to be able to do more cooperative work with MDNR. Will be looking at spatial components instead of just being a polygon representational area. They may give a demonstration to the group in the future.

## XIV. Other Issues

Rick Comstock, Consumers Energy, stated that they are interested in the national pipeline work. He has been working on the environmental analysis for tri-state pipeline proposal. In Oakland County, because of all the objections, they have had dozen alternatives for where the pipeline should go. They are now getting down to half-mile pieces to avoid wetlands. Management still is not willing to go all the way with GIS so they are working on small GIS projects.

Rob Surber, MIC, stated that if the state sets an example to build and share, maybe other companies will see the benefits of tying into an on-going updated geographic data warehouse. SEMCOG and Wayne County have been meeting with Detroit Edison to establish partnerships.

Rob Surber, MIC, distributed a color status map for Jim Best, Michigan State Industries (MSI), who was unable to attend the meeting. This process completes the cycle of attributing basic core MDOT data on framework.

Joyce Newell, MDOT, stated that MDOT attributed Alcona County.

Joyce Newell, MDOT, stated there is a problem connecting to the new MIC web page with the old address. There is no bridge from the old address to the new address. Can get there if you go through MDMB and through MIC.

## XV. Next Meeting Date

Thursday, June 10, 1999, 10 a.m. until noon, Lewis Cass Building, 320 S. Walnut, Lansing, MI 48933 - 6<sup>th</sup> Floor, North Wing, Dept. of Community Health, Director's Conference Room

\*\* If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910.